

Out of Pocket Health Care Expenditure: A Comparison of Public and Private Health Hospitals

*Pooja Kansra
**Rajwinder Kaur

ABSTRACT

The present study compares the out of pocket expenditure (OOP) on health care of public and private hospitals in Jalandhar. For the analysis of data, t-test, mean, percentage and weighted average score have been calculated. It was found that the out of pocket health care expenditure was higher in private hospitals as compared to public hospitals for inpatient care and outpatient care. The average out of pocket health care expenditure was ₹ 153.02 in public hospitals and ₹ 237.46 in private hospitals for outpatient care, however mean health expenditure for inpatient care was ₹ 1181.80 in public hospitals and ₹ 2717 in private hospitals. With weighted average score, it was found that the consequences of private hospitals and inpatient care were more severe than public hospitals and outpatient care. The findings revealed to design a low cost health insurance to save the household from the adverse consequences.

Keywords: *Out of Pocket Expenditure, Private Hospitals, Public Hospitals, Inpatient Care, Outpatient Care.*

1. Introduction

Health status of the people in the country is an important flag-post to evaluate the success of the state policy; health of the individual impacts the growth of the nation in a very material sense. It has been estimated that the differences in the growth performance of many countries can be attributed to the health status of the people. Public expenditure on health support programs in fact contributes quite tangibly in spurring the growth in the country. According to the study by the WHO, India is estimated to lose more than \$237 billion of its GDP over the period 2006-15 on account of premature death and morbidity from non-communicable diseases alone. It is worth pondering that public expenditure on health care is probably a far more efficient economic investment than many other kinds of investments (Yojana, 2014). Out-of-pocket health expenditure encompasses direct net outlays by households on health-related expenses, such as hospitalization, outpatient procedures and medicines, i.e., having deducted the reimbursements received from the health system or insurance system to which the person is affiliated. The burden of out-of-pocket expenditure expresses the magnitude of such expenses in relation to the household's payment capability, defined as the total income of the household minus its subsistence expenses (ECLAC, 2010).

In other words Out-of-pocket payments are expenses borne directly by a patient where neither public nor private assurance covers the full cost of the health good or service. They include cost-sharing and other expenditure paid directly by private households, and also include estimations of informal payments to health care providers in some countries.

Only spending for medical spending (i.e. current health spending less expenditure for the health part of long-term care) is presented here, because the capacity of countries to estimate private long term care expenditure varies (OECD, 2013).

In India, around 70 per cent of the total expenditure on health is out-of-pocket (OOP) payments by households. Large out-of-pocket payments may reduce consumption expenditure on other goods and services and push households into poverty. Health insurance has been considered as one of the possible instruments in reducing impoverishing effects of large out-of-pocket health expenditure. Literature defines out-of-pocket health expenditure as catastrophic if its share in the household budget is more than some arbitrary threshold level. Other major sources of financing health care are the government, insurance, and external sources such as grants and loans from international organizations (Joglekar, 2008).

Out-of-pocket payments rely on the ability to pay. If the financing of health care becomes more dependent on out-of-pocket payments, its burden is shifted towards those who use services more, and possibly from high to low income earners, where health care needs are higher. In practice, many countries have exemptions and caps to out-of-pocket payments for lower income groups to protect health care access. Switzerland, for example, has a high proportion of out-of-pocket expenditure, but it has cost-sharing exceptions for large families, social-assistance beneficiaries and others. There is an annual cap on deductibles and co-insurance payments (OECD, 2011). Health care expenditure has a

* Assistant Professor, School of Business, Lovely Professional University, Phagwara, pkansra@gmail.com

** Student, M.Sc. Economics, School of Business, Lovely Professional University, Phagwara.

catastrophic impact on the household because of incurring high health care costs. Poor households have little money left to meet other basic subsistence needs which are essential for development such as education, housing, transportation etc. In the recent analysis for the impact on health care expenditure for non-communicable disease in India, it was found that about 25 per cent of families with a member with CVD and 50 per cent with cancer experience catastrophic and 10 per cent and 25 per cent respectively are driven to below poverty line.

Keeping this thing in mind, the present study compares the out of pocket health care expenditure of public and private hospitals for the outpatient care and inpatient care both. Section II highlights the review done on out of pocket healthcare expenditure, its nature and implications. In section III, research methodology has been explained. Interpretation and analysis of data have been done in section IV and finally Section V concludes the discussion along with policy implications.

2. Review of Literature

Paulin et al. (1995) identified that partially insured people had less expenditure on health care than the fully insured because fully insured people spent half of their income on health care and the uninsured had very less expenditure on health care. Hwang et al. (1996) examined OOP expenditure by person with and without chronic condition and they found that OOP expenditure rises as number of chronic conditions rises. Gross et al., (1999) found that lower income elderly people have more OOP expenditure than those who were enrolled in Medicaid. Gumber (2000) found that burden of OOP expenditure was high in the informal sector because most of them were illiterate and poor. Ray et al. (2002) found that upper and middle income groups had more OOP expenditure than the lower income groups. The basic reason found that high and middle income avail health facilities from private hospitals and lower income availed from public hospitals. Bridevaux (2004) compared the out of pocket healthcare expenditure of five health therapies; massage therapy, spiritual healing, herbal therapy, nutritional advice and acupuncture and it was found that highest average of OOP payment was associated with nutritional therapies. Garry and Schoeni (2005) examined OOP expenditure before and after widowhood and found that it was higher after widowhood. Rugar and Kim (2007) identified OOP health care expenditure and OOP spending burden ratio using household comparable income in the republic of Korea. They found that the lesser income Korean had the highest OOP expenditure as compared with the higher salary groups and lesser income. Joglekar (2008) found that household with more number of children and elderly person had more OOP expenditure on health care and also identified it was less in urban areas compared to rural areas. The education and insurance also help to mitigate the OOP on health. Hopkins (2010) compared the low, middle and high income countries on the basis of health and GDP. The result of the study

showed that the country with better or high GDP growth had higher health expenditure. They also found that low income countries spent low on health care services than the middle and high income countries of their total. Lorenz (2009) examined OOP private health care expenditure of household of Pakistan in context of NHA (National Health Accounts). They took national income as a key factor and compare it with private health expenditure and they identified that as national income increases, percentage of OOP health expenditure decreases and in low income countries this share is high because there are no national and private insurance schemes. Mohanty et al. (2010) indicated that monthly per capita spending increases with economic status, age, type of illness, type of facility, household size, place of residence, region and gender of the elderly member in the household. Mondal (2010) considered three variables inpatient, outpatient and chronic disease and compared the out of pocket health care expenditure. This shows that household expenditure in inpatient care is more than the outpatient care and rich people spent higher than poor on health expenditure. Alatinga and Fielmua (2011) identified that with rise in income, OOP healthcare expenditure rises. Bhojani et al. (2012) conducted a study in Bangalore, and found that OOP payment driven people into poverty. Kumar et al. (2012) compare public and private hospital and found that OOP spending was high in private hospitals as related to the public. Mohanty and Srivastava (2012) identified OOP expenditure on delivery care in private and public health centers and they found that OOP expenditure on caesarean delivery is almost four times high than the normal delivery. Ye et al. (2013) conducted found that OOP declined with the enrollment of the health insurance.

To fill the gap in the literature, the present study compared the out of pocket spending on healthcare between public and private hospitals and also identified the implications of out of pocket spending on household.

3. Research Methodology

The present research is descriptive in nature. It was conducted on the private and public hospitals of Jalandhar. Jalandhar was chosen for the present study, a city with largest number of hospitals in India. For the collection of data, a structured questionnaire had been prepared. Primary data has been collected from the private and public hospitals in Jalandhar. The hospitals were selected by using random sampling. The study consists of 200 respondents in which 100 respondents were selected from private hospitals and 100 from the public hospitals. The sampling technique used is convenience sampling and the respondents have been selected from private and public hospitals. The survey was conducted between January 2014 to March 2014. For the analysis of the data, weighted average score, t-test, mean, percentage have been used. For checking the normality of data, Kolmogorov-Smirnov was used, which supported the validity of applying t-test for the present analysis. Analysis was carried out with SPSS 16.0.

4. Analysis and Interpretation

Part-I: Profile of Respondents:

The following table deals with the characteristics of the respondents.

Table 1
Profile of the Respondents

Age	Frequency	Percentage
Below 20	17	8.5
20-40	81	40.5
40-60	65	32.5
60 and Above	37	18.5
Gender	Frequency	Percentage
Male	95	47.5
Female	105	52.5
Marital status	Frequency	Percentage
Married	132	66.0
Unmarried	49	24.5
Widowed	12	6.0
Divorced	7	3.5
Number of family members	Frequency	Percentage
Up to 3	15	7.5
3-5	63	31.5
5-7	57	28.5
7-9	35	17.5
9 and Above	30	15.0
Education	Frequency	Percentage
Illiterate	38	19.0
Primary	65	32.5
Secondary	44	22.0
Higher Secondary	27	13.5
Graduate	13	6.5
Post Graduate	13	6.5
Occupation	Frequency	Percentage
Businessman	38	26.0
Service	50	24.5
Housewife	74	37.0
Student	36	18.0
Unemployed	1	.5
Retired	1	.5
Monthly Income (Rs.)	Frequency	Percentage
Below 10,000	80	40.0
10,000-20,000	70	35.0
20,000-30,000	25	12.5
30,000 and Above	25	12.5

Source: Survey Results

In this survey, most of the respondents were lying under the age group of 20-40 followed by 32 per cent in the age group of 40-60; 18 per cent of the respondents were in the age group of 60 and above and only 8 per cent of the respondent were in the age group of below 20, Whereas 95 of them were male and 105 were female. 66 per cent of the respondents were married, 24 per cent were unmarried, 6 per cent were widowed and only 3 per cent respondents were divorced. 32 per cent of the respondents had primary education followed by 22 per cent secondary, 19 per cent respondent were illiterate, 13 per cent of the respondents

had higher secondary and only 6 per cent of the respondents were graduate and post-graduate. 37 per cent of patients were housewives, 26 per cent of patients were businessmen followed by 24 per cent service, 18 per cent were student, and only 0.5 per cent of respondent were unemployed and retired.

Part-II: Nature and Burden of Outpatient Care: Comparison of Public and Private Hospitals

The table compared the nature of illness across the public and private hospitals.

Table 2
Nature of Illness of Outpatient Care: A Comparison of Public and Private Hospitals

Illness*	Public hospital (In %)	Private hospital (In %)
TB	16	10
Diabetes	14	10
Loose motion	4	2
Fever	6	16
Heart attack	6	6
Cold	0	2
High blood pressure	14	14
Asthma	2	6
Stomach ache	4	12
Cough	2	6
Pregnancy test	4	4
Liver problem	0	2
Uterus	6	0
Weakness	2	0
Joint pain	4	0
Food poisoning	8	0
Eye check up	2	0
Accident	6	10
Average Cost of Treatment (in ₹)	Public hospital (Frequency)	Private hospital (Frequency)
Mean Expenditure (in ₹)	153.02	237.46

Source: Survey Results

Reference: In the two month reference period.

From the above table, it has been found that majority of the population had TB followed by diabetes, high blood pressure, food poisoning, fever, pregnancy test, heart attack, weakness etc. in the public hospitals. As far as the private

hospitals were concerned majority of the respondent suffer from fever, high blood pressure followed by stomach ache, TB, diabetes, pregnancy test, weakness etc.

Table 3
Difference in Out of Pocket Health Care Expenditure of Public and Private Hospitals

Variable	N	Mean	S.D.	't'	p-value	Interpretation
Public	50	153.02	97.71	-4.078	0.000*	Significant
Private	50	237.46	109.07			

Source: Survey Results

Note: * Significant at 1%

Table 3 reveals that the value of 't' is -4.078 which was found to be significant at 1 per cent. The results indicate a significant difference of out of pocket health care expenditure in public and private hospitals for outpatient care. However,

comparative study of mean health expenditure indicates an average burden of ₹ 153.02 in public hospitals and ₹ 237.46 in private hospitals.

Table 4
Weights and Ranks of Socio-Economic Implications of out of pocket payment for outpatient care: A Comparison of Public and Private Hospitals

S. No.	Statement*	Public Hospitals		Private Hospitals	
		Weighted Average Score (WAS)	Rank	Weighted Average Score (WAS)	Rank
1	Reduced food consumption	3.46	2	4.12	1
2	Postponed daughter marriage	1.94	7	2.02	8
3	Spend from past savings	3.18	3	3.40	3
4	Borrowing from Bank	1.84	8	1.98	9
5	Stop social obligation /function	3.68	1	2.06	7
6	Decrease in nonfood consumption	2.54	5	2.42	6
7	Sale of household assets	1.52	9	4.04	2
8	Stop purchasing or expansion of house	1.06	11	1.62	10
9	Stop purchasing of consumer durable	1.32	10	1.16	11
10	Stop medical treatment of any other member in the family	3.12	4	2.70	5
11	Reduction in monthly income	2.50	6	3.09	4

Source: Author's Calculations Based on Primary Data

Note: * Statements compared the implications of outpatient across public and private hospitals.

Out of pocket healthcare expenditure has serious implications on households. From the above table, it is vivid that those who obtained treatment from public hospitals for outpatient care stated that there was a stop social obligation /function (WAS=3.68) due to out of pocket healthcare expenditure followed by reduced food consumption (WAS=3.46), spent from past savings (WAS=3.18), stop medical treatment of any other member in the family (WAS=3.12), decrease in nonfood consumption (WAS=2.54), reduction in monthly income (WAS=2.50), postponed daughter marriage (WAS=1.94), borrowing from Bank (WAS=1.84), sale of household assets (WAS=1.52), stop purchasing of consumer durable (WAS=1.32), stop purchasing or expansion of house (WAS=1.06). The consequences of outpatient care from private hospitals on the sampled respondents were reduced food consumption (WAS=4.12), sale of household assets (WAS=4.04), spend

from past savings (WAS=3.40), reduction in monthly income (WAS=3.09), stop medical treatment of any other member in the family (WAS=2.70), decrease in nonfood consumption (WAS=2.42), stop social obligation /function (WAS=2.06), postponed daughter marriage (WAS=2.02), borrowing from Bank (WAS=1.98), stop purchasing or expansion of house (WAS=1.62), stop purchasing of consumer durable (WAS=1.16). From the weighted average scores it was found that the consequences from the private hospitals were more severe than public hospitals.

Part-II: Nature and Burden of Inpatient Care: A Comparison of Public and Private Hospitals

The table given below identifies the hospitalization expenditure incurred on public and private hospitals in Jalandhar.

Table 5
Nature of Illness of Inpatient Care: A Comparison of Public and Private Hospitals

Illness*	Public hospital (In %)	Private hospital (In %)
TB	8	10
Diabetes	4	12
Heart attack	14	8
HIV/AIDS	2	0
High blood pressure	2	2
Asthma	6	8
Typhoid	4	6
Liver problem	14	6
Joint pain	2	8
Cancer	10	4
Stone operation	8	2
Food poisoning	2	0
Paralysis	2	2
Accident	18	22
Eye operation	4	10
Average Cost of Treatment (in ₹)	Public hospital(Frequency)	Private hospital(Frequency)
Mean Expenditure (in ₹)	1181.80	2717.00

Source: Survey Results

Reference: In the one year reference period.

Table 5 shows that majority of the respondents suffer from “accident” both in public and private hospitals. Thereby in the public hospitals, liver problems and heart attack were most prevalent followed by cancer, TB, food poisoning,

paralysis, asthma etc. As far as the private hospitals were examined most of the people suffer from diabetes and TB followed by eye operation, asthma, joint pain, liver problem, typhoid etc.

Table 6
Difference in Out of Pocket Health Care Expenditure of Public and Private Hospitals

Variable	N	Mean	S.D.	‘t’	p-value	Interpretation
Public	50	1181.80	1069.65	-3.989	0.000*	Significant
Private	50	2717.00	1181.17			

Source: Survey Results

*Note: * Significant at 1%*

Table 6 revealed that the value of ‘t’ is -3.989 which was found to be significant at 1 per cent. The results indicate a significant difference of out of pocket health care expenditure in public and private hospitals for inpatient care. However,

comparative study of mean health expenditure indicates an average burden of ₹ 1181.80 in public hospitals and ₹ 2717 in private hospitals.

Table 7
Weights and Ranks of Socio-Economic Implications of out of pocket payment for Inpatient care: A Comparison of Public and Private Hospitals

S. No.	Statement*	Public Hospitals		Private Hospitals	
		Weighted Average Score (WAS)	Rank	Weighted Average Score (WAS)	Rank
1	Reduced food consumption	4.02	1	4.44	1
2	Postponed daughter marriage	3.02	10	1.96	10
3	Spend from past savings	3.88	5	3.80	5
4	Borrowing from Bank	3.98	2	4.26	2
5	Stop social obligation /function	3.68	6	3.12	8
6	Decrease in nonfood consumption	3.92	4	4.12	3
7	Sale of household assets	3.26	8	2.90	9
8	Stop purchasing or expansion of house	3.48	7	1.76	11
9	Stop purchasing of consumer durable	2.58	11	3.12	7
10	Stop medical treatment of any other member in the family	3.20	9	3.30	6
11	Reduction in monthly income	3.96	3	4.10	4

Source: Author's Calculations Based on Primary Data

*Note: * Statements compared the implications of inpatient across public and private hospitals.*

The table given above presents implications of out of pocket healthcare expenditure on sampled households. After comparing weighted average scores, it was found that consequences of inpatient care were more serious than outpatient care. The first implication of out of pocket health care expenditure from public hospitals was reduced food consumption (WAS=4.02) followed by borrowing from Bank (WAS=3.98), reduction in monthly income (WAS=3.96), decrease in non food consumption (WAS=3.92), spend from past savings(WAS=3.88), stop social obligation /function (WAS=3.68), stop purchasing or expansion of house (WAS=3.48), sale of household assets (WAS=3.26), stop medical treatment of any other member in the family (WAS=3.20), postponed daughter marriage (WAS=3.02), stop purchasing of consumer durable (WAS=2.58). On the other hand, the first implication of out of pocket health care expenditure from public hospitals was reduced food consumption (WAS=4.44) followed by borrowing from bank (WAS=4.26), decrease in nonfood consumption (WAS=4.12), reduction in monthly income (WAS=4.10), spend from past savings (WAS=3.80), stop medical treatment of any other member in the family (WAS=3.30), stop purchasing of consumer durable (WAS=3.12), sale of household assets (WAS=2.90), postponed daughter marriage (WAS=1.96), stop purchasing or expansion of house (WAS=1.76).

5. Conclusion

The households included in the present study, did not have any health benefit and relied heavily on their out-of-pocket expenses during an illness. In order to assess the out of pocket healthcare expenditure in public and private

hospitals, t-test, mean, percentage and weighted average score have been calculated. The results of the study highlighted a significant difference in public and private healthcare expenditure. It was found that the burden of outpatient care was more in private hospitals than the public. Findings reveal that on an average, out of pocket health care expenditure was ₹ 153.02 in public hospitals and ₹ 237.46 in private hospitals for outpatient care, however mean health expenditure for inpatient care was ₹ 1181.80 in public hospitals and ₹ 2717 in private hospitals. Household not only have to spend a large amount of money and resources on medical care but also are unable to earn during the period of illness. Very often they have to borrow funds at very high rate of interest to meet both medical expenditure and other household needs. It was not only the inpatient care but also the outpatient care which can push the household into a zone of permanent poverty. The possible consequences emerged from the study were reduced food consumption, borrowing from bank, reduction in monthly income, decrease in nonfood consumption, spend from past savings, stop social obligation /function, stop purchasing or expansion of house, sale of household assets, stop medical treatment of any other member in the family, postponed daughter marriage, stop purchasing of consumer durable. This adds to the health insecurities among households which survive on low wages and uncertain income opportunities. The findings of the study showed that illness imposes a high and regressive cost burdens on households. However undue healthcare burden indicates a potential for voluntary and comprehensive health insurance schemes in the study area.

References:

Bridevaux, P. (2004). A Survey of Patients' Out-of-Pocket Payments for Complementary and Alternative Medicine Therapies, *Complementary Therapies in Medicine*, 12, 48-50.

Ye, C. (2013). A Preliminary Analysis of the Effect of the New Rural Cooperative Medical Scheme on Inpatient Care at a Country Hospital. *BMC Health Services Research*, 13, 519.

Alatinga, K.A. and Fielmua, N. (2011). The Impact of Mutual Health Insurance Scheme on Access and Quality of Health Care in Northan Ghana: The Case of Kassena-Nankana East Scheme. *Journal of Sustainable Development*, 4(5), 125-138.

Kumar, G.A., Dilip, T.R., Dandona, L. and Dandona, R. (2012). Burden of Out of Pocket Expenditure for Road Traffic Injuries in Urban India. *BMC Health Services Research*, <http://www.biomedcentral.com/1472-6963/12/285>

Gumber, A. (2000). Health Care Burden on Household in the Informal Sector: Implications for Social Security Assistance. *The Indian Journal of Labor Economics*, 43 (2), 277-291.

Hopkins, S. (2010). Health Expenditure Comparisons: Low, Middle and High Income Countries. *The Open Health Services and Policy Journal*, 3, 21-27.

Garner, K. S. (2002). *Experimental Poverty Measure under Alternative Treatment of Medical Out of Pocket Expenditure : An Application of Consumer Expenditure Survey*. Retrieved February 27, 2014, from <http://www.bls.gov/ore/pdf/ec020070.pdf>.

Joglekar, R. (2008). *Can Insurance Reduce Catastrophic out of pocket Health Expenditure*. Retrieved 2014, from <http://www.igidr.ac.in/pdf/publication/WP-2008-016>

Lorenz, C. (2009). Out of Pocket Health Expenditure and their use in National Health Accounts: Evidence from Pakistan. *Asia Pasific Reseach Centre*, <http://fsi.stanford.edu/sites/default/files/1AHPPwp9.pdf>

Mohanty, S. (2010). *Out of Pocket Expenditure on Health Care Among Elderly and Non Elderly Household of India*. Retrieved 27, 2014, from http://www.iussp.org/sites/default/files/event_call_for_papers/140113_Latest_Paper_revised.pdf

Paulin, G., & Weber, D. (1995). The Effect of Health Insurance on Consumer Spending. *Monthly Labor Review*, 118 (3), 34-54.

Sesma-Va'zquez, O. G.-R.-R. (2010). Health Insurance for the Poor : Impact on Catastrophic and Out of Pocket Health Expenditure in Mexico. *The European Journal of Health Economics*, 11(5), 437-447.

Srivastava, S. K. (2012). Out of Pocket Expenditure on Institutional Delivery in India. *Health Policy and Planning*, 247-262.

Mondal, S., Kanjilal, B., Peters, D.H. and Lucas, H. (2010). Catastrophic Out of Pocket Payment for Health Care and its Impact on Household :Experience from West Bebgal, India . *Future Health System Innovations for Equality*, http://www.chronicpoverty.org/uploads/publication_files/mondal_et_al_health.pdf

Ray, T.K., Pandav, C.S., Anand, K., Kapoor, S.K. and Dwivedi, S.N. (2002). Out of Pocket Expenditure on Health Care in a North Indian Village. *The National Medical Journal of India*, 15(5) 257-260.

Bhojani B. T. (2012). Out of Pocket Healthcare Payments on Chronic Conditions Impoverish Urban Poor in Bangalore,India. *BMC Public Health*, 12, 990.

Hwang, W., Weler, W., Ireys, H. and Anderson, G. (1996). Out of Pocket Medical Spending For Care of Chronic Conditions. *Health Affairs*, 20(6), <http://www.partnershipforsolutions.org/DMS/files/Out-of-pocket2002.pdf>

Sambo, M.N., Ejembi, C.L., Adamu, Y.M. and Aliyu, A.A. (2004) Out-of-Pocket Health Expenditure for Under-Five Illnesses in a Semi-Urban Community in Northern Nigeria. *Journal of Community Medicine and Primary Health Care*, 16 (1), 29-32

Table 8
Tests of Normality for Outpatient Care

	Kolmogorov-Smirnov*			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Private and Public	.107	100	.006	.953	100	.001

Source: SPSS Output Note: Lilliefors Significance Correction

Table 9
Tests of Normality for Inpatient Care

Kolmogorov-Smirnov*	Shapiro-Wilk					
	Statistic	Df	Sig.	Statistic	Df	Sig.
Private and Public	.134	100	.000	.936	100	.000

Source: SPSS Output Note: Lilliefors Significance Correction

About the Authors:

Pooja Kansra is an Assistant Professor of Economics at School of Business, Lovely Professional University, Phagwara, India. She holds Bachelor's and Master's degree in Economics from Guru Nanak Dev University, Amritsar, and currently pursuing her doctorate from Punjab Technical

University, Jalandhar, India. Pooja is an avid researcher and has presented her work in several national and international conferences. Her research interests include quality management, service marketing and Health economics.

Rajwinder Kaur is a student of M.Sc. (Economics) at School of Business, Lovely Professional University, Phagwara.

Reference # Envision - C -08

